# Before the Federal Communications Commission Washington, D.C. 20554

In the Matter of	)	
	)	
Amendment of the Commission's Rules	)	RM-10330
To Shield Electronics Equipment Against	)	
Acts of War or Terrorism Involving	)	
Hostile Use of Electromagnetic Pulse (EMP)	)	
	)	
	)	

#### **To the Commission:**

## Comments from Nickolaus E. Leggett re FERC Action

I am a certified electronics technician (ISCET and iNARTE) and an Extra Class amateur radio operator (call sign N3NL). I hold an FCC General Radiotelephone Operator License with a Ship Radar Endorsement. I am an inventor holding three U.S. Patents. My latest patent is a wireless bus for digital devices and computers (U.S. Patent # 6,771,935). I have a Master of Arts degree in Political Science from the Johns Hopkins University.

I am one of the petitioners for constructive Commission action on protecting our Nation's communications infrastructure from electromagnetic pulse (EMP). Our first petition was in the 1980s.

### **Federal Energy Regulatory Commission Action**

The Federal Energy Regulatory Commission (FERC) has taken the following action in favor of standards for the protection of the electric power grid from solar storms (geomagnetic disturbances). Such solar storms are a phenomenon that is related to the impact that can occur from EMP attacks and events.

Listed below is the notification that was sent to me today by the FERC:

### "FERC Orders Development of Reliability Standards for Geomagnetic

#### **Disturbances**

The Federal Energy Regulatory Commission (FERC) today issued a final rule requiring development of reliability standards that address the impact of geomagnetic disturbances (GMD) to ensure continued reliable operation of the nation's Bulk-Power System.

GMDs caused by solar events distort, with varying intensities, the earth's magnetic field.

These events can have potentially severe, widespread effects on reliable grid operation, including blackouts and damage to critical or vulnerable equipment. Existing mandatory reliability standards do not adequately address GMD vulnerabilities on the Bulk-Power System.

Today's rule directs the North American Electric Reliability Corporation (NERC), the FERC-approved Electric Reliability Organization, to develop and submit new GMD standards in a two-stage process. The Commission did not require NERC to include any specific requirements in the GMD reliability standards; it identified issues to be considered and addressed in the standards development process.

In the first stage, NERC must file, within six months of the rule taking effect, one or more reliability standards requiring owners and operators of the Bulk-Power System to develop and implement operational procedures to mitigate GMD effects. The rule encourages implementation of the standards within six months of Commission approval. The final rule also directs NERC to conduct a geomagnetic disturbance vulnerability assessment and identify facilities most at-risk from a severe disturbance.

In the second stage, NERC has 18 months to file standards identifying "benchmark GMD events," which define the severity of GMD events a responsible entity must assess for potential

impacts on the Bulk-Power System. Those standards must require owners and operators to conduct initial and continuing assessments of the potential effects of specified "benchmark GMD events" on equipment and the Bulk-Power System as a whole. If the assessments identify potential effects from such events, the reliability standards should require a responsible entity to develop and implement plans to protect against instability, uncontrolled separation or cascading failures of the system.

The final rule takes effect 60 days after publication in the Federal Register.

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